

Town of Wallingford, Connecticut

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BUREAU OF WATER PROTECTION AND LAND REUSE OFFICE OF THE BUREAU CHIEF

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Mr. Paul Stacy
Connecticut Department of Environmental Protection
Bureau of Water Protection and Land Reuse
Planning and Standards Division
79 Elm Street
Hartford, CT 06106-5127

Re: Comments Regarding Proposed Streamflow Regulations

Dear Mr. Stacy:

While supporting the goal of the proposed streamflow regulations to improve stream and river ecology, the Wallingford Water Division urges the rejection of the regulations in their current form. We believe that the streamflow regulations as proposed do not meet the statutory requirements for balance by sufficiently recognizing and providing for the "needs and requirements of public health, flood control, industry, public utilities, water supply, public safety, agriculture and other lawful uses of such waters." Specifically, we submit the following comments with respect to the proposed regulations:

Technical Issues

- The regulations are not sufficiently developed in order to allow the regulated community the opportunity to accurately assess the impacts. There are three elements in particular that must be in place in order to enable an accurate assessment to be made.
 - Under the proposed regulations, stream classifications would not be determined until after the regulations are adopted. Differences in stream classifications can result in significantly differing impacts to available safe yield of drinking water supplies and the costs of needed improvements. In fairness to all users, the stream classifications should be determined prior to the adoption of the streamflow regulations so that the actual impacts can be more accurately determined and balanced against the environmental benefits.
 - The proposed regulations refer to methods developed by the U.S. Geological Survey or otherwise acceptable to the commissioner as the basis for determination of the bioperiod releases. However, to date such methods have not been finalized and therefore the required releases for a particular system cannot be accurately modeled. The methods should be finalized and available

to the regulated community prior to the adoption of the streamflow regulations.

- The proposed regulations provide for staged reductions in required releases in response to drought triggers contained in a water supply plan. There are two issues related to the use of drought triggers that must be resolved before the impact of the regulations can be meaningfully assessed.
 - 1. The drought triggers included in water supply plans are developed by each individual utility and may not be consistent from utility to utility. This can be expected to result in an inconsistent application of the staged reductions called for in the proposed regulations. In order for this section of the proposed regulations to be meaningful, there must be a consistent approach to the establishment of drought triggers.
 - 2. The existing drought triggers were developed without the requirement for bioperiod releases that are called for in the proposed regulations. Once a consistent approach for developing drought triggers is established, these triggers would need to occur sooner to reflect required releases in order to ensure that sufficient water is retained for public water supply purposes.

Impacts to Water Supply

- An analysis of the impacts to Wallingford was performed, utilizing a mathematical computer model in accordance with DPH guidelines for safe yield analysis. This analysis utilized best available assumptions relative to stream classifications and USGS method for determining bioperiod releases. This analysis determined that the safe yield of our surface supplies, which are Wallingford's primary source of supply, would be reduced by 35-40 percent. Consequences of these reductions would include routine restrictions in customer usage due to more frequent and sustained excursions below the drought triggers. The ability to meet the water supply needs relative to expansion by existing customers or to provide for needs of future customers would be substantially reduced unless additional sources of supply could be developed.
- With respect to the impacts to groundwater systems, we have been unable to assess the impacts due to the late availability of a guidance document. Any reductions that ultimately occur in safe yield would exacerbate the impacts discussed above.

Economic Impacts

• The proposed regulations are intended to provide benefits to many users of Connecticut's rivers through improvements in aquatic ecology. However, the regulations would result in substantial increases in costs for water utilities which would be borne solely by the customers of these water suppliers. Utility customers would experience substantial increases in water rates. However, they would enjoy no

improvement in service in exchange for the increased rates. A mechanism needs to be developed in order to more equitably share the costs associated with the proposed regulations among <u>all</u> of the benefited parties.

- The fiscal analysis of the proposed regulations provided by the DEP fails to fully identify the costs associated with the implementation of the regulations. A full analysis and disclosure of the costs and impacts on taxpayers, water ratepayers, citizens, businesses and industries should be completed prior to the adoption of the regulations. This would allow for an evaluation of whether the costs are justified relative to the perceived environmental benefits.
- Specific fiscal impacts to Wallingford include:
 - Stranded investment in existing facilities that were constructed based upon a long-term water supply plan, the use of which can no longer be fully realized due to the reduction in safe yield discussed above. Costs of stranded investment will be borne by existing ratepayers through increased rates in the long term.
 - Costs for construction of the necessary facilities or modifications of existing facilities needed to reliably control and monitor the required releases. These costs may be substantial and, in the case of small watersheds, excessive in comparison to the environmental benefit. In response to earlier comments, the DEP created an exemption for small watersheds. However, as proposed, the exemption still requires a release rate of .1 cfsm and therefore provides no relief from the costs associated with facility improvements for release purposes. We believe stream systems with an upstream drainage area of one and one-half square miles or less are often associated with intermittent streams and are not capable of sustaining streamflow throughout the year. Accordingly we believe that impoundments with an upstream drainage area of one and one-half square miles or less should be exempted from any release requirements.
 - Impacts to utility revenues associated with reduced water consumption resulting from more frequent and sustained periods when operating under drought triggers. This will result in higher rates as fixed utility costs must be recovered from a reduced sales volume.
 - Substantial capital investment to improve the redundancy of all system supplies as a consequence of operating with a significantly reduced margin of safety.
 - Operating costs would be increased in order to provide the additional staff time needed to calculate the required releases and to make the necessary adjustments at each impoundment and/or groundwater withdrawal. Due to the complexity of Wallingford's interdependent reservoir system, these costs will

be exaggerated in order to ensure effective operation of the reservoir system while maintaining the necessary releases.

- Treatment costs for chemicals to treat surface supplies would increase due to more frequent problems with taste and odors, color, disinfection byproducts and turbidity.
- Due to the configuration of Wallingford's reservoir system the Town will incur increased electrical costs due to the need to place more water into storage reservoirs for future releases.

While the above listed costs have not yet been quantified, it is likely that the cumulative cost could exceed ten million dollars. As previously mentioned, these costs would be shouldered solely by the water ratepayers who would receive no benefit in terms of improved service in return. We respectfully request that the DEP modify the regulations to reduce the costs to utility ratepayers and to more equitably distribute costs among all benefited parties. Further, as previously discussed, the accumulated costs associated with these regulations must be fully determined and disclosed so that they may be balanced against the environmental benefits.

Other Consequences

- The consequences of operating Wallingford's water supply reservoirs with the safe yield reductions associated with the proposed regulations would be more frequent and severe reservoir drawdown which would cause increased temperatures, more frequent algae blooms along with oxygen depletions and highly variable habitats within the impoundments due to large fluctuations in reservoir levels. In an attempt to improve the aquatic environment in the downstream reaches, the regulations may result in detrimental impacts to aquatic life within the impoundments.
- In instances where recreational use of an impoundment is allowed, the opportunities for such use may be severely restricted due to reduced accessibility associated with large fluctuations in water levels.
- No regulations are in place or contemplated that would enable expeditious permitting
 for new supplies within a five-year period. The proposed regulations will limit the
 location and volumes of future water supplies that can be developed. The likely
 result will be a deluge of new applications for sources to make up the deficiencies
 caused by the required streamflow releases and will place undue pressure on
 developing Class B water drinking water supplies.
- All water utilities are required to evaluate the theoretical safe yield of their systems.
 The streamflow regulations will reduce the amount of available yield on virtually every water supply reservoir throughout the state. However, compliance with the

regulations may reduce available supplies well beyond that represented in the theoretical safe yield. The streamflow regulations for watersheds that are larger than three square miles require operators to monitor and respond to flow conditions through six separate bioperiods. Those utilities with multiple reservoirs, such as Wallingford's system, must balance flow releases over these bioperiods at each source plus manage the hydraulics among the interconnected reservoir system for optimization of safe yield. Using Wallingford as an example, flows will need to be managed at four reservoirs over six bioperiods plus reservoir transfers from the three collection reservoirs to the terminal reservoir, also taking into consideration hydraulic limitations on pumping and piping along with diversion flow restrictions. This results in an extremely complex matrix of conditions that is onerous to manage on a daily basis. The result is that theoretical safe yield may simply not be achievable in the real world, necessitating a higher margin of safety to be maintained.

For all of the above reasons the Wallingford Water Division urges the DEP to withdraw the regulations in their present form. The DEP should then complete the development of the missing elements, i.e., stream classifications, USGS methods, drought triggers, etc., which would allow affected stakeholders to accurately assess the impacts of the regulations. DEP should then work with stakeholders to develop an accurate and comprehensive analysis of all of the fiscal impacts. Once this has been compiled it would then be possible to engage the stakeholders in the dialog which must occur in order to ultimately achieve the balance between the needs of the various stakeholders intended by Public Act 05-142. Only once a consensus among the stakeholders has been achieved should the DEP proceed with the promulgation of revised regulations. We understand that this process will be time-consuming and that consensus will be difficult to achieve. However, a regulatory initiative such as this, which proposes to so substantially alter the manner in which water resources are managed, deserves a more complete analysis and consensus among stakeholders than has occurred to date.

Sincerely.

Roger M. Dann General Manager

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